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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,040	07/05/2001	Young Woo Yoon	K-280	2570

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EXAMINER

TORRES, JOSEPH D

ART UNIT PAPER NUMBER

2133

DATE MAILED: 03/12/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/898,040

Applicant(s)

YOON ET AL.

Examiner

Joseph D. Torres

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-63 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-23, drawn to A Method for Configuring a Transmission Chain by Matching Turbo or Convolution Coded Bitstreams to Interleave Size, classified in class 714, subclass 788.
- II. Claims 24-36, drawn to A Transmission Chain with Variable Rate and Flexible Rate Codes with an Interleaver and a Method for Matching the Coded Bitstreams to a Prescribed Rate, classified in class 714, subclass 779.
- III. Claims 37-42, drawn to a Turbo Encoder with First and Second Encoders to Produce First and Second Parity whereby the Second Encoder is coupled to Receive Data From the First Decoder, classified in class 714, subclass 786.
- IV. Claims 43-60, drawn to A Method for Matching a Data Rate by Minimizing an Amount of Repetitions Needed in a Rematching Device, classified in class 714, subclass 822.
- V. Claim 61-63, drawn to An Apparatus Configured to Support Enhanced Rate Adaptation Mode for Supplemental Channel Operation, classified in class 714, subclass 774.

The inventions are distinct, each from the other because of the following reasons:

Inventions Group I, A Method for Configuring a Transmission Chain by Matching Turbo or Convolution Coded Bitstreams to Interleave Size, and Group II, A Transmission Chain with Variable Rate and Flexible Rate Codes with an Interleaver and a Method for Matching the Coded Bitstreams to a Prescribed Rate, are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention Group I, A Method for Configuring a Transmission Chain by Matching Turbo or Convolution Coded Bitstreams to Interleave Size, has separate utility such as for use with generalized convolutionally encoded bitstreams whereby the convolutionally encoded bitstreams are matched to an interleave size. In the instant case, invention Group II, A Transmission Chain with Variable Rate and Flexible Rate Codes with an Interleaver and a Method for Matching the Coded Bitstreams to a Prescribed Rate has separate utility such as with variable rate codes whereby variable rate coded bits are matched by a prescribed amount other than interleave size. See MPEP § 806.05(d).

Inventions Group I, A Method for Configuring a Transmission Chain by Matching Turbo or Convolution Coded Bitstreams to Interleave Size, and Group III, Turbo Encoder with First and Second Encoders to Produce First and Second Parity whereby the Second Encoder is coupled to Receive Data From the First Decoder, are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention Group I, A Method for Configuring a Transmission Chain

by Matching Turbo or Convolution Coded Bitstreams to Interleave Size, has separate utility such as for use with generalized convolutionally encoded bitstreams whereby the convolutionally encoded bitstreams are matched to an interleave size. In the instant case, invention Group III, Turbo Encoder with First and Second Encoders to Produce First and Second Parity whereby the Second Encoder is coupled to Receive Data From the First Decoder, has separate utility such as with a turbo encoder with a first encoder, coupled to receive an input data bit and generate a First data bit and a second encoder to receive the first data bit and generate a second data bit and third and fourth parity bits. See MPEP § 806.05(d).

Inventions Group I, A Method for Configuring a Transmission Chain by Matching Turbo or Convolution Coded Bitstreams to Interleave Size, and Group IV, A Method for Matching a Data Rate by Minimizing an Amount of Repetitions Needed in a Rematching Device, are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention Group I, A Method for Configuring a Transmission Chain by Matching Turbo or Convolution Coded Bitstreams to Interleave Size, has separate utility such as for use with generalized convolutionally encoded bitstreams whereby the convolutionally encoded bitstreams are matched to an interleave size. In the instant case, invention Group IV, A Method for Matching a Data Rate by Minimizing an Amount of Repetitions Needed in a Rematching Device, has separate utility such as in matching data rates by minimizing the amount repetitions needed in a rematching device. See MPEP § 806.05(d).

Inventions Group I, A Method for Configuring a Transmission Chain by Matching Turbo or Convolution Coded Bitstreams to Interleave Size, and Group V, An Apparatus Configured to Support Enhanced Rate Adaptation Mode for Supplemental Channel Operation, are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention Group I, A Method for Configuring a Transmission Chain by Matching Turbo or Convolution Coded Bitstreams to Interleave Size, has separate utility such as for use with generalized convolutionally encoded bitstreams whereby the convolutionally encoded bitstreams are matched to an interleave size. In the instant case, invention Group V, An Apparatus Configured to Support Enhanced Rate Adaptation Mode for Supplemental Channel Operation, has separate utility such as in an apparatus configured to support enhanced rate adaptation mode for supplemental channels. See MPEP § 806.05(d).

Inventions Group II, A Transmission Chain with Variable Rate and Flexible Rate Codes with an Interleaver and a Method for Matching the Coded Bitstreams to a Prescribed Rate, and Group III, Turbo Encoder with First and Second Encoders to Produce First and Second Parity whereby the Second Encoder is coupled to Receive Data From the First Decoder, are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention Group II, A Transmission Chain with Variable Rate and Flexible Rate Codes with an Interleaver and a Method for Matching the Coded Bitstreams to a Prescribed Rate has separate utility

such as with variable rate codes whereby variable rate coded bits are matched by a prescribed amount other than interleave size. In the instant case, invention Group III, Turbo Encoder with First and Second Encoders to Produce First and Second Parity whereby the Second Encoder is coupled to Receive Data From the First Decoder, has separate utility such as with a turbo encoder with a first encoder, coupled to receive an input data bit and generate a First data bit and a second encoder to receive the first data bit and generate a second data bit and third and fourth parity bits. See MPEP § 806.05(d).

Inventions Group II, A Transmission Chain with Variable Rate and Flexible Rate Codes with an Interleaver and a Method for Matching the Coded Bitstreams to a Prescribed Rate, and Group IV, A Method for Matching a Data Rate by Minimizing an Amount of Repetitions Needed in a Rematching Device, are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention Group II, A Transmission Chain with Variable Rate and Flexible Rate Codes with an Interleaver and a Method for Matching the Coded Bitstreams to a Prescribed Rate has separate utility such as with variable rate codes whereby variable rate coded bits are matched by a prescribed amount other than interleave size. In the instant case, invention Group IV, A Method for Matching a Data Rate by Minimizing an Amount of Repetitions Needed in a Rematching Device, has separate utility such as in matching data rates by minimizing the amount repetitions needed in a rematching device. See MPEP § 806.05(d).

Inventions Group II, A Transmission Chain with Variable Rate and Flexible Rate Codes with an Interleaver and a Method for Matching the Coded Bitstreams to a Prescribed Rate, and Group V, An Apparatus Configured to Support Enhanced Rate Adaptation Mode for Supplemental Channel Operation, are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention Group II, A Transmission Chain with Variable Rate and Flexible Rate Codes with an Interleaver and a Method for Matching the Coded Bitstreams to a Prescribed Rate has separate utility such as with variable rate codes whereby variable rate coded bits are matched by a prescribed amount other than interleave size. In the instant case, invention Group V, An Apparatus Configured to Support Enhanced Rate Adaptation Mode for Supplemental Channel Operation, has separate utility such as in an apparatus configured to support enhanced rate adaptation mode for supplemental channels. See MPEP § 806.05(d).

Inventions Group III, Turbo Encoder with First and Second Encoders to Produce First and Second Parity whereby the Second Encoder is coupled to Receive Data From the First Decoder, and Group IV, A Method for Matching a Data Rate by Minimizing an Amount of Repetitions Needed in a Rematching Device, are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention Group III, Turbo Encoder with First and Second Encoders to Produce First and Second Parity whereby the Second Encoder is coupled to Receive Data From the First Decoder,

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has separate utility such as with a turbo encoder with a first encoder, coupled to receive an input data bit and generate a First data bit and a second encoder to receive the first data bit and generate a second data bit and third and fourth parity bits. In the instant case, invention Group IV, A Method for Matching a Data Rate by Minimizing an Amount of Repetitions Needed in a Rematching Device, has separate utility such as in matching data rates by minimizing the amount repetitions needed in a rematching device. See MPEP § 806.05(d).

Inventions Group III, Turbo Encoder with First and Second Encoders to Produce First and Second Parity whereby the Second Encoder is coupled to Receive Data From the First Decoder, and Group V, An Apparatus Configured to Support Enhanced Rate Adaptation Mode for Supplemental Channel Operation, are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention Group III, Turbo Encoder with First and Second Encoders to Produce First and Second Parity whereby the Second Encoder is coupled to Receive Data From the First Decoder, has separate utility such as with a turbo encoder with a first encoder, coupled to receive an input data bit and generate a First data bit and a second encoder to receive the first data bit and generate a second data bit and third and fourth parity bits. In the instant case, invention Group V, An Apparatus Configured to Support Enhanced Rate Adaptation Mode for Supplemental Channel Operation, has separate utility such as in an apparatus configured to support enhanced rate adaptation mode for supplemental channels. See MPEP § 806.05(d).

Inventions Group IV, A Method for Matching a Data Rate by Minimizing an Amount of Repetitions Needed in a Rematching Device, and Group V, An Apparatus Configured to Support Enhanced Rate Adaptation Mode for Supplemental Channel Operation, are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention Group IV, A Method for Matching a Data Rate by Minimizing an Amount of Repetitions Needed in a Rematching Device, has separate utility such as in matching data rates by minimizing the amount repetitions needed in a rematching device. In the instant case, invention Group V, An Apparatus Configured to Support Enhanced Rate Adaptation Mode for Supplemental Channel Operation, has separate utility such as in an apparatus configured to support enhanced rate adaptation mode for supplemental channels. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II and vice a versa, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group III and vice a versa, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group IV and vice a versa, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group V and vice a versa, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group III and vice a versa, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group IV and vice a versa, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group V and vice a versa, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group III is not required for Group IV and vice a versa, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group III is not required for Group V and vice a versa, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group IV is not required for Group V and vice a versa, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

A telephone call was made to Daniel Kim on 03 March 2004 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

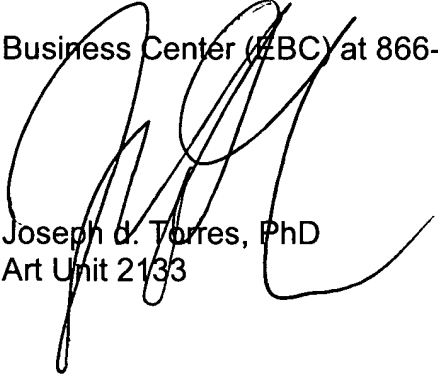
Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (703) 308-7066. The examiner can normally be reached on M-F 8-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (703) 305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joseph d. Torres, PhD
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